

### REMARKS/ARGUMENTS

Reconsideration of the rejections set forth in the Final Office Action dated August 9, 2004 is respectfully requested. Claims 1-23 are currently pending and have been rejected.

The Applicant would like to thank the Examiner for clarifying the notation he used in the Office Action dated April 15, 2004 which was unfamiliar to the Applicant. The Applicant greatly appreciates the courtesy extended by the Examiner, as well as his effort to alleviate the Applicant's confusion.

#### Drawings

The Applicant notes that the replacement drawings filed on May 28, 2004 are acceptable for examining purposes only. Formal drawings are being filed with the filing of this amendment.

#### Rejections under 35 U.S.C. § 102

Claims 1, 2, 4, 8, 9, 11, 15, 16, 18, and 22 have been rejected under 35. U.S.C. § 102(e) as being anticipated by Gehring et al. (U.S. Patent No. 6,597,683 B1), hereinafter "Gehring."

Independent claim 1 recites a method for coordinating access to a shared transmission medium which includes generating a schedule of a wireless transmission for nodes. The schedule precludes collisions between simultaneous transmission by any pair of nodes controlled by a master node including pairs of nodes that do not hear each other's transmissions.

The Examiner has argued that Gehring teaches the method of claim 1, and has stated that Gehring discloses "means/code for generating a schedule for node transmission precluding collisions between simultaneous transmission by any pair of nodes including pairs that do not hear each other." It is respectfully submitted that Gehring does not appear to disclose precluding

collisions between simultaneous transmission by any pair of nodes controlled by a master node including pairs of nodes that do not hear each other's transmissions. Gehring does not appear to disclose pairs of (slave) nodes that do not hear each other's transmissions. On the contrary, Gehring teaches of slave transceiver devices 36a-n of Fig. 3 of Gehring that include transmitters for transmitting data to other slave transceiver devices 36a-n via antennas 40a-n (which are included in slave transceiver devices 36a-n) and receivers for receiving data from slave transceiver devices 36a-n via antennas 40a-n (Gehring, column 8 at lines 54-66). In the description of Fig. 3, **Gehring seems to indicate that all slave devices hear (receive) each other's transmissions**, as Gehring specifically discusses transceivers 36a-n receiving data from other transceivers 36a-n via antennas 40a-n.

Gehring also teaches of data slots which provide data transmission time for corresponding slave devices (Gehring, column 9 at lines 34-40). However, data slots which provide data transmission time for corresponding slave devices do not teach of a generated schedule that precludes collisions between simultaneous transmission of pairs of nodes that do not hear each other's transmissions in Gehring. Since Gehring appears to teach of slave devices that all hear each other's transmissions, and does not even make any suggestion to the contrary, it is respectfully submitted that Gehring does not teach of pairs of nodes that do not hear each other's transmissions. Therefore, claim 1 is believed to be allowable over Gehring for at least this reason.

Claims 2-4 each depend either directly or indirectly from independent claim 1 and are, therefore, each believed to be allowable over claim 1 for at least the reason set forth above with respect to claim 1. Each of these dependent claims recite additional limitations which, when considered in light of claim 1, are believed to further distinguish the claimed invention over the art of record.

Independent claim 8, 15, and 22 recite similar limitations as recited in claim 1. As a result, claims 8, 15, and 22, as well as their respective dependents, are each believed to be allowable over Gehring for at least the reason set forth above.

Rejections under 35 U.S.C. § 103

Claims 5, 6, 12, 13, 19, 20, and 23 have been rejected under 35. U.S.C. § 103(a) as being unpatentable over Gehring in view of Anvekar et al. (U.S. Patent No. 6,377,805 B1), hereinafter "Anvekar." Claims 3, 7, 10, 14, 17, and 21 have been rejected under 35. U.S.C. § 103(a) as being unpatentable over Gehring in view of Bandeira et al. (U.S. Publication No. 2002/0072329 A1), hereinafter "Bandeira."

*Independent claims 5, 12, 19, and 23 and their respective dependents*

Independent claim 5 recites a method for coordinating access to a shared transmission medium that includes receiving registration information from a newly contactable node at a selected wireless node, and forwarding the registration information from the selected wireless node to a master node. The method also includes receiving a time allocation for transmission by the newly contactable node from the master node at the selected wireless node, and transmitting the time allocation for transmission by the newly contactable node to the newly contactable node.

In his rejection of claim 5, the Examiner has admitted that Gehring does not show selected nodes receiving and forwarding registration information from new nodes to a master node, and continuing to receive and forward a transmission time allocation for the new node from the master node. However, the Examiner has argued that Anvekar somehow overcomes the deficiencies of Gehring. With all due respect to the Examiner, the Applicant respectfully disagrees with the Examiner's position.

Anvekar does not appear to teach of a node receiving and forwarding registration information from new nodes to a master node. The Examiner argues on page 10 of the Final Office Action dated August 9, 2004, that Figs. 2 and 3 of Anvekar show that a newly contactable node 205 registers with a selected slave node 206 to establish data forwarding through slave node 206 and master node 203 to network server 201. It is respectfully submitted that Figs. 2 and 3, and the corresponding text, do not show a node that receives and forward registration information from a new node to a master node.

Anvekar appears to teach of a node (unit 205) that checks for channel availability (Anvekar, column 4 at lines 37-39). The node (unit 205) pages selected wireless nodes (*e.g.*, unit 206) until a channel becomes available to allow the node to relay data packets to and from a selected wireless node (unit 206) (Anvekar, column 4 at lines 9-21). Anvekar does not appear to suggest that there is any communication or registration information which occurs between a newly contactable node (unit 205) and a master node (unit 204 or unit 203), as Anvekar specifically teaches that a newly contactable node (unit 205) **communicates only** with an available selected wireless node (unit 206) which functions as a master only until the selected wireless node (unit 206) can get a communication link with a master node (unit 204 or unit 203) (Anvekar, column 4 at lines 9-15), and does not teach of or suggest that the newly contactable node (unit 205) **forwards registration information through the selected wireless node** (unit 206) to the master node (unit 204 or unit 203). There is no teaching of or suggestion in Anvekar of any communication occurring between a newly contactable node (unit 205) and the master node (unit 203) through a selected wireless node (unit 206). Although Anvekar discusses unit 206 communicating with unit 203 and unit 205, there is no suggestion that unit 205 communicates with unit 203 through unit 205. Hence, the Applicant submits that Anvekar does not teach of or reasonably suggest a method which includes receiving registration information from a newly contactable node at a selected wireless node, and forwarding the registration information from the selected wireless node to a master node. Accordingly, claim 5 is believed to be allowable over a combination of Gehring and Anvekar for at least this reason.

Claim 6 depends directly from independent claim 5 and is, therefore, believed to be allowable over claim 5 for at least the reasons set forth above with respect to claim 5. Independent claims 12, 19, and 23 recite similar limitations as recited in claim 5. As a result, claims 12, 19, and 23, as well as their respective dependents, are each believed to be allowable over the art of record for at least the reasons set forth above.

*Independent claims 7, 14, and 21*

Independent claim 7 recites a method which includes generating a transmission schedule at a master node, and distributing the transmission schedule from the master node to other nodes. The transmission schedule is divided into time slots where at least one time slot is allocated for transmission from a first node that can be directly contacted by the master node to the master node and for transmission from a second node that cannot be directly contacted by the master node but can be directly contacted by the first node.

On page 7 of the Final Office Action dated August 9, 2004, the Examiner has admitted that Gehring does not show a time slot allocated as a subslot for transmission by a first node that can be directly contacted by a master node and a second node that cannot be directly contacted by the master node. It is respectfully submitted that Bandeira does not overcome the deficiencies of Gehring. Specifically, Bandeira does not appear to teach of or suggest that at least one time slot is allocated for transmission from a first node that can be directly contacted by a master node to a master node and for transmission from a second node that cannot be directly contacted by the master node but can be directly contacted by the first node. Bandeira teaches of polling cycles in which a repeater node (e.g., location 2 of Figs. 2 and 4 of Bandeira) stores collected upstream data during its full polling cycle (Bandeira, page 5 at paragraph 0054), then waits to be polled by its master at which time the repeater node transmits all of the upstream data it collected (Bandeira, page 5 at paragraph 0054). Hence, Bandeira does not teach of a time slot during which the repeater node transmits data to its master and during which a node that cannot be directly reached by the master node is also transmitting.

On page 11 of the Final Office Action dated August 9, 2004, the Examiner has asserted that transmission of data to a master from the repeater node and transmission of data from a node that cannot be directly reached by the master node is also transmitting occurs within the same allocation time slot. The Applicant is unable to find such teaching in Bandeira, and notes that as shown in Fig. 4 of Bandeira, locations 2, 5, and 9 are not even polled at the same time. Hence, the Applicant submits that locations 2, 5, and 9, as shown in Fig. 4 of Bandeira, may not be said

Appl. No. 09/742,888  
Amd. Dated: October 4, 2004  
Reply to Final Office Action of August 9, 2004

to transmit data at the same time, as alleged by the Examiner. Accordingly, claim 7, as well as claims 14 and 21, are each believed to be allowable for at least this reason.

Conclusion

For at least the foregoing reasons, the Applicant believes all the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 446-8696.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Peggy A. Su". The signature is fluid and cursive, with the first name "Peggy" and last name "Su" clearly distinguishable.

Peggy A. Su  
Reg. No. 41,336

RITTER, LANG & KAPLAN LLP  
12930 Saratoga Ave., Suite D1  
Saratoga, CA 95070  
Tel: 408-446-8690  
Fax: 408-446-8691